

ABSTRACT OF THE DISCLOSURE

A misalignment detector includes a light source, a synthesizing unit, a focusing unit, an image sensor, and a misalignment calculator.

The light source, the synthesizing unit, the focusing unit, and the image
5 sensor are arranged in such a manner that light illuminated by the light
source passes through the synthesizing unit so as to illuminate the
position detection pattern, gets reflected from the position detection
pattern, passes through the synthesizing unit so as to be focused by the
focusing unit on the image sensor. A misalignment calculator detects
10 an amount of misalignment of the laser beams based on an image
formed in the image sensor.